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**Qwest Corporation**  
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**Kenneth T. Cartmell**  
Executive Director-Federal Regulatory

July 10, 2000

Mr. Dale Hatfield  
Chief, Office of Engineering and Technology  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW, Room 7-C155  
Washington, DC 20554

RE: CFR 47, Section 63.100  
Final Service Disruption Report, Park City, UT  
PRCYUTMADS0

Dear Mr. Hatfield:

On June 9, 2000, Qwest Corporation<sup>1</sup> (Qwest) experienced a Service outage in Park City, Utah. In accordance with the reporting rules, CFR 47, Section 63.100, enclosed is Qwest's Final Service Disruption Report for this outage.

Please contact me if you have questions concerning this report.

Sincerely,

Attachments

cc: Mr. Robert Kimball  
Mr. Doug Sicker

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<sup>1</sup> On June 30, 2000, U S WEST, Inc., the parent and sole shareholder of U S WEST Communications, Inc., merged with and into Qwest Communications International Inc. Further, on July 6, 2000, U S WEST Communications, Inc. was renamed Qwest Corporation.

# Final Service Disruption Report

**Reporting Company:** Qwest Corporation<sup>1</sup>

**Location of Disruption:** Park City, UT      PRCYUTMADS0

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**1. Date and Time of Incident:**

June 9, 2000 at 0945 MDT.

**2. Geographic Area Affected:**

Park City (PRCYUTMADS0), Heber City (HBCYUTMARS1), Coalville (CLVLUTMARS1), Utah and surrounding communities were affected.

**3. Estimated Number of Customers Affected:**

Approximately 35,200 Qwest Corporation (Qwest) customers were affected by the outage.

**4A. Types of Services Affected:**

Interoffice and 911 Services were affected.

**4B. 911 Service Affected:**

The affected area was isolated from 911. Park City and Heber City were patched to a temporary radio facility for the greater portion of the event; Coalville was isolated until the fiber was restored.

**5. Duration of Outage:**

Service was restored to more than 33,000 customers within 5-1/2 hours. Splicing was completed and all services restored at 2240 MDT. The total duration of the outage was 12 hours and 55 minutes.

**6. Estimated Number of Blocked Calls:**

- There were approximately 190,000 blocked calls.

**7A. Root Cause of the Incident:**

The root cause of the incident was a fiber cable cut.

A construction company, working for the state of Utah, severed a Qwest conduit while rebuilding a highway interchange.

**7B. Name and Type of Equipment:**

144 Strand Fiber Optic Cable  
48 Strand Fiber Optic Cable  
600 Pair Copper Cable  
314 Pair T Screen Cable

**7C. Specific Part of Network Affected:**

Interoffice transport.

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**8. Method(s) Used to Restore Service:**

The cables were spliced.

**9. Steps Taken to Prevent Recurrence of Outage:**

The following steps have been or will be taken to prevent recurrence of the outage:

There were cable markers in place on this route, but construction in the area had obscured and/or moved them.

There was a cable locate request for the activity taking place, but it had expired on May 29, 2000.

- ◆ The construction company is aware of their responsibilities under the Utah One Call law and will take full responsibility for the damages.
- ◆ The 911 PSAPs in the area were not preprogrammed for automatic reroute for an isolation event. Qwest will contact the PSAP administrators to offer this service.

**10A. Applicable Best Practice(s):**

Qwest reviewed Network Reliability: A Report to the Nation, June 1993 and evaluated all recommendations and best practices by focus area. Based on the root cause analysis, the most appropriate focus areas are:

Section A – Fiber Optics Cable Dig-Ups

Reference 6.1.1 – Best Practices to Prevent Fiber Cable Damage Caused By Digging

Section B – Signaling Network Systems

Reference 6.1.1 - Root Cause Analysis

Reference 6.2.1.9 – Planning and Provisioning Process for CCS Link Diversity

Section F – E911 Systems

Reference 6.4 Network Management Center

**10B. Best Practice(s) Used:**

Section A – Fiber Optics Cable Dig-Ups

Reference 6.1.1 – Best Practices to Prevent Fiber Cable Damage Caused By Digging

Section B – Signaling Network Systems

Reference 6.1.1 - Root Cause Analysis

Reference 6.2.1.9 – Planning and Provisioning Process for CCS Link Diversity

Section F – E911 Systems

Reference 6.4 Network Management Center

**10C. Analysis of Effectiveness of Best Practice(s):**

Section A – Fiber Optics Cable Dig-Ups

Reference 6.1.1 – Best Practices to Prevent Fiber Cable Damage Caused By Digging – Call-before-you-dig and Locate the cable.

This recommendation describes cable locate requirements and damage prevention measures, including enforcement of federal and state “call-before-you-dig” legislation and underground facility damage prevention laws.

In this event, a cable locate was requested and performed, but had expired.

Section B – Signaling Network Systems

Reference 6.1.1 - Root Cause Analysis

While this recommendation is specific to Signaling Networks, Qwest currently requires a root cause analysis on all significant network failures.

Reference 6.2.1.9 – Planning and Provisioning Process for CCS Link Diversity

This practice recommends a planning and provisioning process for SS7 link diversity. Qwest has managers within the SS7 organization assigned to such a process. In addition, Qwest has a diversity check program that is run on a regular basis to identify locations where diversity might be addressed. In this area, there is a single route to the affected offices. Qwest is currently evaluating the possibility of providing diversity to those offices.

Section F – E911 System

Reference 6.4 Network Management Center

This recommendation describes the use of centralized network management centers to monitor the E911 network as a unique entity, separate from the rest of the network.

Qwest network traffic for E911 trunk groups is monitored in the two regional Network Management Centers. Qwest also has two Regional network Reliability Operations Centers with responsibility for monitoring the health of the network.

**Contact Person:**

Kenneth Cartmell, Executive Director - Federal Regulatory  
Qwest Corporation  
1020 19th Street, NW, Suite 700  
Washington, D.C. 20036  
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**FCC INITIAL REPORT**  
**U S WEST - Large Scale Abnormal Condition Report (LSACR)**  
**Service Disruption Report**

[X] 120 MINUTE REPORT [ ] 3 DAY REPORT

ACR #: UT. 000609.003

Date Of Incident: 06-09-00 Time Of Incident: 0945 MDT

Geographic Area Directly Affected: PARK CITY, UTAH  
(Cities, LATA(s), States(s))

CLLI code(s) for affected area: PRCYUTMADS0

Estimated Number of Customers Affected: 35164  
(i.e. Access lines in the switch, LATA(s) or States(s))

Types of Services Affected (e.g. Local, Toll, 800, 911, FAX, etc.): TOLL

911

Duration of Outage (Hours & Minutes): ONGOING

Estimated Number of Blocked Calls: ONGOING

Apparent Cause of Incident: FIBER CABLE CUT

Method Used to Restore Service: PEROUTES & ONGOING

Steps Taken to Prevent Recurrence: UNDER INVESTIGATION

CONTACT PERSON: Kenneth Cartmell-Exec. Dir-Fed Regulatory Ph: 202-429-3136  
U S WEST  
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Tim Mason  
Vice President - NROC  
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U S WEST  
700 W. Mineral, Littleton, CO 80120

-or-  
Dave Rygh  
Director - Network Management Center  
Ph: 303-707-5608  
U S WEST  
700 W. Mineral, Littleton, CO 80120

Date Reported to FCC: 06-09-00

Time Reported to FCC: 1125 MDT  
(Include AM/PM, Time Zone)

Person Faxing Report: DAVID C. YOUNG

Time Confirmed with FCC: \_\_\_\_\_

Telephone Number: 800 879 1200

FCC Contact Name: \_\_\_\_\_

**PRI FAX: Monitoring Watch Officer (202) 418-2812-Confirm at (202) 632-6975**

**Secondary FAX: Monitoring Watch Officer (301) 725-2571 - Confirm at (301) 725-2278**

**(To be used only at the direction of the Primary Fax Monitoring Watch Officer)**

**Also FAX to:** U S WEST Federal Relations Office at (202) 296-5157

**Also FAX to:** Karen Eccli/Jane Quigley (303) 707-2229

**Also FAX to:** Glenda Weibel (206) 345-2129

**Also FAX to:** Bev Sharpe (303) 694-1719